

REMARKS

Reconsideration is respectfully requested in light of the foregoing Amendment and remarks that follow.

Claims 3-5, 7-8 and 10-12 are before the Examiner. Claims 3 has been amended to address points raised in the Office Action. Claim 4 has been amended to include the subject matter of claim 6, which has been cancelled. Claims 10-12 are directed to exemplified metals used as dopants, with the exception of noble metals. Noble metal dopant materials are mentioned in the context of suitability similar to that of cerium. See page 11, last paragraph.

The objection to the specification has been considered. It appears that "A" in both instances are typos. It is clear that "H" was intended. Applicants have amended the specification to address the point raised. Withdrawal of the objection is respectfully requested.

Claims 3, 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al (5,776,240) in view of Mangold et al. (CA 2,223,377). Applicants respectfully traverse.

Claim 3 has been amended so that it is clear that claimed subject matter is directed to a rapid dissolving reinforcing filler composition for organic systems comprising an effective amount of surface-modified, pyrogenically produced oxides doped by aerosol and having a hydrophobic surface. (Claim 5, directed to a filler, was not included in this rejection.) Claims 10-12 specify dopants which are exemplified in the specification. The organosilane coated potassium doped pyrogenically produced metal oxides reinforcing fillers of claim 11 correspond to the fillers exemplified in the Rule 132 declaration. The organosilane coated aluminum doped pyrogenically produced metal oxides reinforcing fillers of claim 12 correspond to the fillers

exemplified in the specification. It appears that the Examiner was dismissive of the results shown in the specification and also those shown in the Rule 132 Declaration due to the perceived breadth of the claims. This is clearly not warranted for the amended claims. As to the unexpected nature of the results shown, the art relied upon is not suggestive of them. (The product according to the invention has the advantage that it can be worked into organic systems, e.g. polyester resin (see p. 13 of the specification) more rapidly and at a higher concentration. This is more evident from the Rule 132 declaration. Note at a 20% filler concentration levels, organic mixtures, which included non-coated pyrogenic metal oxides, were not possible. There is no recognition in the art relied upon nor is there an Examiner explanation provided as why a mere silane coating of doped pyrogenically produced oxides would produce the dramatic results shown.) The claims, as amended, are more commensurate in scope with the showings provided-filler composition and filler reinforcing amounts.

The instant teachings relied upon are not directed to reinforcing filer compositions.

Deller et al. is directed to a catalyst support where the catalytic metal is introduced into the support by a coating process. Deller et al. disclose granules based on pyrogenically produced silicon dioxide, which shows a particle size of 10 to 120 μm . These granules can be surface-modified. Deller et al do not mention a filler use. The principal utility mentioned by Deller et al. for the granules is as catalyst supports. Deller et al. mention the use of some pyrogenically produced silicas in column 6 as educts. There is no disclosure or suggestion of the combination of a pyrogenically produced oxide doped by an aerosol and surface modification.

Mangold et al. disclose pyrogenically produced oxides doped by an aerosol. However, Mangold et al. do not disclose a surface modified pyrogenically produced oxides doped by an

aerosol. While Mangold et al. do discloses a thickening effect, there is no suggestion or recognition of the advantage taught for applicants' product appearing on page 13 of the specification, e.g. higher concentrations and "rapidity" of "work in" (dispersion).

The Examiner recognizes the Deller et al. use as a catalyst support is distinct from that taught by Applicants but urges that it would have been obvious to arrive at the claimed invention by combining Deller et al.'s surface treatment and the Mangold et al. pyrogenically produced oxides dope for reasons different than Applicants. This is clearly not the case now. The claims have been amended to specify a reinforcing filler composition.

It is respectfully submitted that a prima facie case has not been established. Reconsideration and withdrawal of the rejection are respectfully requested. Further, unexpected are shown and the claims are so directed.

Claims 3, 5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Läufer et al. (4,022,152) in view of Mangold et al. (CA 2,223,377). Applicants respectfully traverse.

The claims 3 and 4 have been amended as noted above. The amendments to product claim 3 and their relevance are discussed above. Claim 4, a method claim, now includes the treatment step of claim 6, a claim not included in the rejection. The product and the method are not similarly situated relative to this reference combination.

Läufer et al. (Example 1) disclose a pyrogenically produced silicon oxide treated with D₄ (octamethyltetrasiloxane). Läufer et al. do not disclose a surface modified pyrogenically produced oxide doped by an aerosol. Läufer et al. clearly do not desire the presence of water. See col. 3, l. 5-10 and col. 6, l. 21-32.

Mangold et al. disclose pyrogenically produced oxides doped by an aerosol. Mangold et al. do not disclose or suggest surface modification of its pyrogenically produced oxides doped by an aerosol. Mangold et al. do not disclose the advantages of applicants' product appearing on page 13 of the specification (higher concentrations and ease of dispersibility). These advantages are distinct from the thickening effect described by Mangold et al.

The Examiner's position is that it would have been obvious to modify Läufer et al. product by substituting a pyrogenic dioxide for silicon dioxide. (Please consider that dopants have a variety of effects suggesting guidance and motivation in dopant selection is required so that one selects the dopant appropriate for reinforcing fillers - see U.S. Patent Nos. 6,767,377; 6,676,719; 6,592,970; 6,409794; 5,847,250; published U.S. Application Nos. 20020134027- and its appropriate use with silane coatings.) Further, it is not clear why the Examiner insists that it is Applicants' burden to explain why the properties originally possessed by Mangold et al.'s product are not impacted by Läufer et al.'s techniques or visa versa. It is the Examiner's burden to establish a proper *prima facie* case of obviousness.

The Examiner apparently relies on the teachings provided in Applicants' specification to establish his expectation that the properties created by each reference to their products using respectively a coating technique and a doping technique, would be not be impact when their techniques are combined. However, such a reliance is derived from a hindsight reliance. The ordinary skilled artisan would not have that knowledge. The Examiner provides no explanation or rationale as to why that would be so. It remains the Examiner's burden to establish a proper *prima-facie* case of obviousness. Applicants' specification is not available as a reference in that regard.

In addition, The Examiner's attention is again direct to the results established in the Rule 132 Declaration (potassium doping) and in the specification (the benefits of aluminum doping are exemplified). With regard to potassium doping, both Example 5 and 6 show transparency, though of different degrees. The art, relied upon, suggests none. The Examiner has merely speculated that transparency would have been expected.

In view of the foregoing amendments and remarks, the application is believed to be in condition for allowance and a notice to that effect is respectfully requested.

Should the Examiner not find the Application to be in allowable condition or believe that a conference would be of value in expediting the prosecution of the Application, Applicants request that the Examiner telephone the undersigned Counsel to discuss the case and afford Applicants an opportunity to submit any Supplemental Amendment that might advance prosecution and place the Application in allowable condition.

Respectfully submitted,



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